

2010 ORGANIC PEAR PROGRAM

(Based on February 2010 list of approved products)

DORMANT (Zinc)**

Zinc Sulfate	20-40 pounds/acre
Surround*	50 pounds/acre
*Surround repels the adults and discourages egg laying. The best program is three covers prior to bloom beginning at dormant. Second year programs frequently skip the dormant application and apply twice before bloom.	
**If orchard or weather conditions make this application difficult, zinc deficiency may be avoided by using a post harvest zinc sulfate in early October.	

Do not apply this spray past the stage that the bud scales have separated. Do not apply Zinc Sulfate within 5 days of an oil application. Temperatures should be expected to reach high 40's or above on days zinc is applied. Be sure and shut off early enough in afternoon so that the last tank of spray will have plenty of time to dry before temperatures begin to drop.

DORMANT (Pear Psylla, Rust mite)

Summer Oil	4 gallons/acre
Surround*	50 pounds/acre
Lime Sulfur	2.5 gallons/100 gallons
All rates are shown per acre except those products where concentration of material is important.	

Apply at first Psylla egg lay, at least 5 days after a Zinc Sulfate application in locations where two applications of oil and sulfur are possible before bud separation.

DELAYED DORMANT (Pear Psylla, San Jose scale)

SummerOil	4-6 gallons/acre
Kumulus	12 pounds/acre
Surround	25-50 pounds/acre
+TECH-GRO B-17 Boric Acid	5 pounds/acre
+Nu-Cop 50 WP	10-12 pounds/acre

Apply this spray 7 to 10 days after the dormant application, depending on the weather. You may apply this spray from the time the bud cluster is exposed until tight cluster stage. Do not apply oil within 5 days of a Zinc Sulfate application. Temperatures should be expected to be in mid-40°F range or above on days oil is applied. Shut off early enough in afternoon so the last tank will have plenty of time to dry before evening.

PRE-BLOOM (Pear Psylla, Pear mildew)

Neemix* (Not on Concord)	8 ounces/acre
Aza Direct (Not on Concord)	1-2 pints/acre
Summer Oil	1 gallons/acre
Surround**	25-50 pounds/acre
*Apply Ecozin and oil at the first evidence of Pear Psylla egg hatch. Insect control is by contact and ingestion only coverage must be complete. Do not apply under very slow drying conditions to avoid possible fruit marking. The Surround applications should provide very good leafroller control, however Dipel may be included if leaf roller pressure is high and the weather conditions are suitable for active feeding. Ecozin alone is reported to suppress leafroller.	
**Surround may be included at this time for fruit finish, continued delay of Psylla egg laying and suppression of leafroller, but it is important begin Nymph control with Ecozin at the initial hatch.	

POST BLOOM (Pear Psylla, mites)

Neemix* (Not on Concord)	8 ounces/acre
Aza Direct (Not on Concord)	1-2 pints/acre
Summer Oil	0.5-0.75 gallons/100 gallons
All rates are shown per acre except those products where concentration of material is important.	

Apply at the first visible Psylla hatch after bloom; repeat at seven to ten-day intervals for as long as first to third instar nymph are found in the orchard. If spider mites are also a target and you are spraying at 100 gallons per acre, increase the oil to 1 gallon/acre. Dilute applications (200 gpa or above) of Ecozin and oil with good canopy coverage will allow extension of the spray interval to 14 to 18 days and still provide good control of light to moderate populations. Dipel or Entrust may be included if leaf roller pressure is high.

SUMMER PSYLLA CONTROL

Neemix* (Not on Concord)	8 ounces/acre
Aza Direct (Not on Concord)	1-2 pints/acre
Summer Oil	0.5-0.75 gallon/100 gallons

Continue to apply at appropriate intervals as long as psylla egg and early instar nymph are found in the orchard.

CODLING MOTH CONTROL

Summer Oil*	1 1.5 gallons/100 gallons
Entrust**	3 ounces/acre
Granulosis Virus***	See product label
Dipel DF****	1.5 pounds/acre
Neemix (Not on Concord)***** OR Aza Direct (Not on Concord)	8 ounces/acre 1-2 pints/acre
*Apply oil just prior to codling moth egg hatch, (150 to 200-degree days past biofix). Use the degree-day model for proper timing. **Apply 2 – 3 oz per acre 10 – 14 days after the initial oil cover. Consistent cover over the first codling moth generation should also control most leafroller populations. ***Alternate Granulosis virus and Entrust until egg hatch for the first generation is complete. Granulosis is a suppression tool aimed at lowering the population level of succeeding codling moth generations. It will not appreciably lower the damage of the generation that is treated. ****Dipel may be needed for leafroller control if Entrust is not being applied consistently. *****If your basic psylla control is Neemix or Aza Direct, keep the interval at no more than 14 days combined with oil, Entrust or virus for as long as psylla eggs are continuously being laid on the shoot tips. Successfully controlling both psylla and codling moth during May to early July may keep you off the sprayer and out of the orchard until harvest. All rates are shown per acre except those products where concentration of material is important.	

Pheromone dispensers should be placed in the orchard by the time King Bloom is opening on apples in the same location. (See mating disruption for Codling Moth.) A two or three application program of ¾% to 1% oil should be used properly timed to your local Codling Moth phenology model. Second generation pressure should be low enough to alternate oil and virus on a 10 – 14 day schedule, beginning with the oil at 1300 –1400 degree days past biofix, or as indicated by trap catch.

POST HARVEST (Rust Mites, Adult Psylla)

Lime Sulfur solution	4 gallons/ 100 gallon
Summer Oil	3 quarts/ 100 gallon
All rates are shown per acre except those products where concentration of material is important.	

Fall AND spring applications of Lime Sulfur are critical for the control of pear Rust Mite. Apply this spray immediately after harvest to prevent the Rust Mite from over-wintering under the outer scales of the developing fruit and leaf buds. Control is by contact only. Coverage must be complete.

FALL NUTRIENT

Zinc Sulfate	20-40 pounds/ acre
+Nu-Cop 50WP*	10-12 pounds/ acre
+TECH-GRO B-17 Boric Acid	3-5 pounds/ acre
*Nu-CopWP is certified organic. Nu-CopDF is not certified organic.	

Do not apply zinc sulfate before October 1st to avoid premature leaf drop. The leaves need to senesce normally for any amount of Zinc and Boron to cross the abscission layer. It is best to apply this program while leaves are still green and active so that the nutrients may be absorbed through the leaves into the plant.